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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/903,843	07/11/2001	Asher Klatchko	005214 USA/ETEC	2204
32588	7590	03/09/2005	EXAMINER	
APPLIED MATERIALS, INC. 2881 SCOTT BLVD. M/S 2061 SANTA CLARA, CA 95050			THOMPSON, JAMES A	
			ART UNIT	PAPER NUMBER
			2624	

DATE MAILED: 03/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/903,843	Applicant(s) KLATCHKO ET AL.	
	Examiner James A Thompson	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2001.
- 2a) ☐ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

- a. In claim 1, line 9, change "parent pixel map; and" to "parent pixel map;".
- b. In claim 1, line 17, change "frame, and" to "frame; and".
- c. In claim 1, line 18, change "where the parent pixel map" to "wherein the parent pixel map".
- d. In claim 3, line 6, change "grayscale values;" to "grayscale values; and".
- e. In claim 4, line 6, change "grayscale values;" to "grayscale values; and".
- f. In claim 5, line 1, change "claim 1, or 3 or 4 wherein" to "claim 1, 3 or 4, wherein".
- g. In claim 8, line 4, change "parent pixel map; and" to "parent pixel map;".

DETAILED ACTION

Information Disclosure Statement

2. The information disclosure statement filed 11 July 2001 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Specifically, the non-patent literature *Computer Vision* by Dana H. Ballard and Christopher M. Brown was not considered since there is no copy in the file.

Drawings

3. The drawings are objected to because figure 6 does not contain reference numbers to each element of the flowchart shown in figure 6. Further, said reference numbers must be properly referenced in the specification.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional

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replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Allowable Subject Matter

4. Claims 1-8 are allowed.

As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

The following is an examiner's statement of reasons for allowance:

In regards to independent claims 1, 3 and 4, the closest prior art found were Hieda (US Patent 6,631,216 B2), Gupta (US Patent 5,852,475), Kamei (US Patent 5,717,786), McQueen (US Patent 6,674,904 B1), and Darwish ("Adaptive resampling algorithm for image zooming", by A.M. Darwish, M.S. Bedair and S.I. Shaheen, *IEE Proc.-Vis. Image Signal Process.*, vol. 144, no. 4, August 1997).

Hieda teaches grayscale image interpolation in which a grayscale correction value is calculated. The grayscale correction value is indirectly based on the sizing distance in that the grayscale correction value is based on the relative distance of the original pixel centers to the interpolated pixel center. Hieda does not specifically teach calculating the

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grayscale correction value in the manner specifically recited in claim 1, nor does Hieda teach calculating the factor in the specific manners recited in claims 3 and 4. Further, Hieda does not teach the propagation of new grayscale values and the compensation for expected systemic distortions using the type of parent/daughter pixel maps specifically recited in claim 1.

Gupta teaches finding and flagging edge pixels expressed within a frame of a parent pixel map, and correcting grayscale values for the purpose of edge correction. Gupta does not teach the methods of grayscale correction recited in claims 1, 3 and 4. Further, Gupta does not teach the propagation of new grayscale values and the compensation for expected systemic distortions using the type of parent/daughter pixel maps specifically recited in claim 1.

Kamei teaches the calculation of gradient vectors for grayscale image data and analysis of the distribution of said gradient vectors. Kamei does not specifically teach the grayscale correction in the manners recited in claims 1, 3 and 4. Further, Kamei does not teach the propagation of new grayscale values and the compensation for expected systemic distortions using the type of parent/daughter pixel maps specifically recited in claim 1.

McQueen teaches tracing boundaries and thresholds using a 3x3 window and adjusting the threshold values based on the contour analyses. McQueen does not teach the specific types of grayscale correction recited in claims 1, 3 and 4. Further, McQueen does not teach the propagation of new grayscale values and the compensation for expected systemic distortions using the type of parent/daughter pixel maps specifically recited in claim 1.

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Darwish teaches image grayscale correction for image resampling in the case of image zooming. Darwish does not specifically teach the specific types of grayscale correction recited in claims 1, 3 and 4. Further, Darwish does not teach finding and flagging a edge pixels and corner pixels within a frame of the parent pixel map, the propagation of new grayscale values, and the compensation for expected systemic distortions using the type of parent/daughter pixel maps specifically recited in claim 1.

Since Examiner has been unable to find a prior art reference which recites each and every element of independent claims 1, 3 and 4, and has been unable to find a combination of prior art references which render claims 1, 3 and 4 obvious to one of ordinary skill in the art at the time of the invention, independent claims 1, 3 and 4 are deemed to contain allowable subject matter. Further, since claim 2 depends from claim 1, claim 2 is deemed allowable. Further, since claims 5-8 depend, either directly or indirectly, from claim 4, claims 5-8 are deemed allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5. This application is in condition for allowance except for the following formal matters:

The corrections to the drawings listed above in item 3 must be provided. Further, a legible copy of the non-patent

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literature cited in the information disclosure statement, and listed above in item 2, must be submitted for consideration.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A Thompson whose telephone number is 703-305-6329. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K Moore can be reached on 703-308-7452. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James A. Thompson
Examiner
Art Unit 2624

JAT
11 February 2005



THOMAS D.
~~LEE~~ LEE
PRIMARY EXAMINER